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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,483	01/06/2004	Hiroyuki Nagahama	Q79238	3550

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EXAMINER

TRINH, SONNY

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,483

Applicant(s)

NAGAHAMA ET AL.

Examiner

Sonny TRINH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/06/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Receiver capable of switching between digital / analog broadcasting signal."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by Kumar (U.S. Patent Number 6,005,894).

Regarding **claim 1**, Kumar discloses a receiver that accepts a high frequency signal containing both a digital broadcasting signal and an analog broadcasting signal which are associated with one channel and converts the high frequency signal into an intermediate frequency signal (abstract, figure 16, column 29 line 60 to column 30 line 24), said receiver comprising:

carrier determining means for determining whether a group of carrier signals of said digital broadcasting signal, which is included in said intermediate frequency signal,

satisfies a predetermined requirement so as to generate a requirement satisfaction determination signal indicating a determination result; and switching means for, when the requirement satisfaction determination signal delivered thereto from said carrier determination means indicates that the group of carrier signals doesn't satisfy said predetermined requirement while said receiver is receiving the digital broadcasting signal, switching to reception of the analog broadcasting signal, and for, when the requirement satisfaction determination signal delivered thereto from said carrier determination means indicates that the group of carrier signals satisfies said predetermined requirement while said receiver is receiving the analog broadcasting signal, switching to reception of the digital broadcasting signal (figures 18-19, see description starting from column 31 line 40, specifically lines 25-51 of column 33).

Allowable Subject Matter

3. **Claims 2-11** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding **claim 2**, the applied references fail to disclose or render obvious the claimed limitations, specifically wherein the digital broadcasting signal is an orthogonal-frequency-division-multiplexed signal, and said carrier determining means outputs a requirement satisfaction determination signal indicating that the group of carrier signals doesn't satisfy said predetermined requirement when a total of electric power of each of the plurality of carrier signals arranged at predetermined intervals of a certain

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frequency, which is obtained by performing a high-speed Fourier transform on the group of carrier signals of the digital broadcasting signal, is less than a predetermined value.

Regarding **claim 3**, the applied references fail to disclose or render obvious the claimed limitations, specifically wherein the digital broadcasting signal is an orthogonal-frequency-division-multiplexed signal, and said carrier determining means outputs a requirement satisfaction determination signal indicating that the group of carrier signals doesn't satisfy said predetermined requirement when a difference among amplitudes of the plurality of carrier signals arranged at predetermined intervals of a certain frequency, which is obtained by performing a high-speed Fourier transform on the group of carrier signals of the digital broadcasting signal, is greater than a predetermined value.

Regarding **claim 4**, the applied references fail to disclose or render obvious the claimed limitations, specifically wherein the digital broadcasting signal is an orthogonal-frequency-division-multiplexed signal, and said carrier determining means outputs a requirement satisfaction determination signal indicating that the group of carrier signals doesn't satisfy said predetermined requirement when a group delay characteristic value of each of the plurality of carrier signals arranged at predetermined intervals of a certain frequency, which is obtained by performing a high-speed Fourier transform on the group of carrier signals of the digital broadcasting signal, is greater than a predetermined value.

Regarding **claim 5**, the applied references fail to disclose or render obvious the claimed limitations, specifically wherein the receiver further comprising high frequency

signal processing means for selecting said channel from among a plurality of channels respectively associated with a plurality of high frequency signals, said plurality of channels having different centre frequencies, each of the plurality of high frequency signals containing a digital broadcasting signal and an analog broadcasting signal, and for generating and outputting the intermediate frequency signal including the digital broadcasting signal and the analog broadcasting signal associated with the selected channel, wherein said carrier determining means delivers a band control signal causing said high frequency signal processing means to widen a frequency band of the intermediate frequency signal to said high frequency signal processing means when the group of carrier signals satisfies said predetermined requirement, and delivers a band control signal causing said high frequency signal processing means to narrow the frequency band of the intermediate frequency signal to said high frequency signal processing means otherwise.

Regarding **claim 9**, the applied references fail to disclose or render obvious the claimed limitations, specifically wherein the receiver further comprising high frequency signal processing means for selecting said channel from among a plurality of channels respectively associated with a plurality of high frequency signals, said plurality of channels having different centre frequencies, each of the plurality of high frequency signals containing a digital broadcasting signal and an analog broadcasting signal, and for generating and outputting the intermediate frequency signal containing the digital broadcasting signal and the analog broadcasting signal associated with the selected channel, wherein when the group of carrier signals satisfies the predetermined

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requirement, said carrier determining means generates an attenuation control signal indicating an instruction for attenuating a predetermined band including a centre frequency of the high frequency signal associated with said channel selected by said high frequency signal processing means.


CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonny TRINH whose telephone number is 571-272-7927. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward URBAN can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/16/06


SONNY TRINH
PRIMARY EXAMINER